

Appl. No. 10/684,316
Amdt. dated April 5, 2005
Reply to Office Action of January 10, 2005

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-55. (Canceled)

56. (Previously presented) A method of securing an aircraft against unauthorized direction or misdirection, comprising:
detecting a potential imminent unauthorized control input to the aircraft;
in response to the step of detecting, triggering a security mode whereby manual control of the aircraft navigation is disabled, and automatic control of aircraft navigation is commenced.

57. (Previously presented) The method of Claim 56, and further comprising the steps of:
automatically selecting a nearest suitable landing site for the aircraft based on a search of a database of landing sites; and
automatically redirecting the aircraft onto a flight path terminating at the selected nearest suitable landing site.

58. (Previously presented) The method according to Claim 56, and further comprising the step of:
receiving a remotely transmitted radio transmission constructed to control the navigation of the aircraft after entry into the security mode.

59. (Previously presented) An apparatus for securing an aircraft against unauthorized direction or direction of the aircraft, the apparatus comprising:
a security navigation module further comprising:
an alarm interface to an alarm source for receiving an alarm signal directed to the security navigation module from the alarm source;

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a control interface for sending communications to flight control facilities of the aircraft; and

a sensor interface for receiving communications from aircraft sensor facilities, whereby receipt of an alarm signal at the alarm interface is operative to cause the security navigation module to disable manual navigation control of the aircraft and to assert automatic control of the aircraft by sending a communication to the flight control facilities of the aircraft via the control interface, wherein the automatic control of the aircraft is based at least in part on signals received by the security navigation module at the sensor interface.

60. (Previously presented) The apparatus of Claim 59, wherein the alarm source is a manual actuator manipulatable by a human operator.

61. (New) The method of Claim 56, and further comprising deactivating an aircraft voice communication radio.

62. (New) The method of Claim 56, and further comprising transmitting at least one of a cockpit voice recorder (CVR) data or a flight data recorder (FDR) data to a ground control station.

63. (New) The method of Claim 56, wherein triggering the security mode comprises:

disabling manual control of aircraft navigation;
deactivating manual control of an auto-pilot control on board the aircraft; and
inputting flight path and landing instructions to the auto-pilot control.

64. (New) The method of Claim 63, further comprising receiving flight path and landing instructions from a ground station.

65. (New) The method of Claim 63, further comprising:
obtaining position location information;

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- comparing the position location information to a predetermined list of approved landing airports;
- identify a suitable airport from the predetermined list of approved landing airports; and
- determining flight path and landing instructions for landing at the suitable airport.
66. (New) A method of securing an aircraft against unauthorized direction or misdirection, comprising:
- receiving an indication of a distress event;
 - disabling on board manual control of the aircraft;
 - disabling manual on board control of the aircraft autopilot; and
 - inputting flight path and landing instructions to the autopilot.
67. (New) The method of Claim 66, wherein receiving the indication of the distress event comprises receiving the indication from an on board device.
68. (New) The method of Claim 66, wherein receiving the indication of the distress event comprises receiving the indication from a ground station.
69. (New) The method of Claim 66, wherein inputting flight path and landing instructions to the autopilot comprises:
- receiving flight path and landing instructions from a ground station; and
 - inputting the flight path and landing instructions received from the ground station to the autopilot.
70. (New) The method of Claim 66, wherein inputting flight path and landing instructions to the autopilot comprises:
- obtaining position location information;
 - comparing the position location information to a predetermined list of approved landing airports;

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identify a suitable airport from the predetermined list of approved landing airports; and

determining flight path and landing instructions for landing at the suitable airport.

71. (New) The method of Claim 70, wherein the list of predetermined list of approved landing airports comprises a list of approved military airports.

72. (New) The method of Claim 66, further comprising deactivating an aircraft voice communication radio.

73. (New) The method of Claim 66, further comprising transmitting at least one of a cockpit voice recorder (CVR) data or a flight data recorder (FDR) data to a ground control station.